

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 10/517,370

Attorney Docket No.: Q85119

AMENDMENTS TO THE DRAWINGS

Fig. 1 is redrafted as a formal drawing.

Attachment: One (1) Replacement Sheet

REMARKS

Claims 1-9 and 11 are all the claims pending in the application. Claim 1 is editorially amended to cure a minor informality *i.e.*, to add an apostrophe between real and time for consistency. The amendment does not narrow the literal scope of the claims and thus does not implicate an estoppel in the application of the doctrine of equivalents. The amendment was not made for reasons of patentability. In addition, Applicant adds claims 12-15, which are clearly supported throughout the specification.

I. Preliminary Matter

As a preliminary matter, the Examiner objected to the amended figure 1 because it is informal. Applicant submits herewith a Replacement Drawing, which is a formal Fig. 1. Accordingly, Applicant respectfully requests the Examiner to withdraw this objection to the figure.

II. Summary of the Office Action

The Examiner withdrew the previous grounds of rejection. The Examiner, however, found new grounds for rejecting the claims. Claims 1-9 and 11 presently stand rejected under 35 U.S.C. § 102(e).

III. Prior Art Rejections

Claims 1-9 and 11 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2004/0120302 A1 to Sebire et al. (hereinafter “Sebire”) and as being anticipated by U.S. Patent Publication No. 2006/0209806 to Vanttinen (hereinafter “Vanttinen”).

Applicant respectfully traverses these grounds of rejections in view of at least the following exemplary comments.

For example, independent claims 1, 9, and 11, in some variation, recite: supporting the real-time traffic in the GERAN radio access network by allocating dedicated channels to said real time traffic and supporting the real-time traffic in a packet mode in the core network connected to the GERAN radio access network via a Gb interface. The Examiner contends that Sebire and Vanttinen anticipate the unique features of claims 1, 9, and 11. Applicant respectfully disagrees.

Sebire discloses a communications system that includes a first station capable of communication with a second station over a wireless channel, where data is carried over the wireless channel in superframes. A superframe includes a number of frames, each of which has a number of timeslots. The system has a first mode of operation in which a full rate data channel for circuit switched communications is defined by the allocation to that data channel of corresponding time slots in each frame, a second mode of operation in which two half rate data channels for circuit switched communications are defined by the allocation to each of those data channels of an equal number of corresponding time slots of frames in each superframe, and a third mode of operation in which four quarter rate data channels for circuit switched communications are defined by the allocation to each of those data channels of an equal number of corresponding time slots of frames in each superframe (*see* Abstract and ¶¶ 36-42).

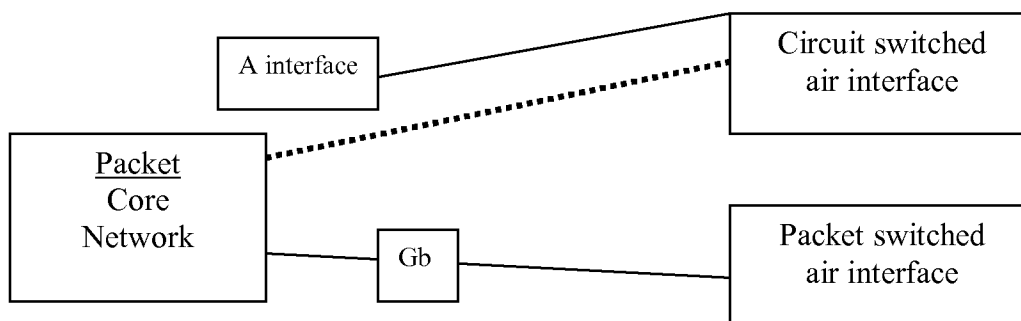
Specifically, Sebire discloses that a bearer services allow a user to access various forms of communications such as asynchronous circuit switched data service interworking with the

public switched telephone network (PSTN) or packet switched synchronous data service interworking with the packet switched public data network (PSPDN) (§ 2). With respect to channel allocation, Sebire discloses using dedicated channels in a circuit switch mode i.e., in the PSTN network. Sebire does not disclose or suggest using dedicated channels in the packet switch mode.

That is, Sebire discloses the protocol stack includes a media access control (MAC) layer 109 which includes two modes 110 and 111 which are for dedicated and shared channels respectively. For dedicated channels no user ID is included allowing only one user per channel however when DTX occurs data packets from the same user can be transmitted. In shared mode the same channel can be shared between several users. In Sebire, the protocol stack also includes a physical layer (PHYS) 112 which includes two modes 113 and 114 which are for circuit switched (TCH) and packet switched channels (PCH) respectively. In Sebire, the dedicated channels are provided with the circuit switched mode and the common channels are provided with packet switched channels (Fig. 10; ¶¶ 156-158). In short, Sebire does not disclose or even remotely suggests supporting real time traffic in the radio access network by allocating dedicated channels to said real time traffic in the packet mode.

In addition, Sebire simply discloses various modes but fails to disclose or even remotely suggest a Gb interface (packet mode) having the dedicated channel. Specifically, Sebire discloses an improved GERAN. Sebire discloses that previously there has been on the one hand a circuit switched air interface (TCH+SACCH+idle) connected to a circuit switched core network (through the A interface) and on the other hand a packet switched air interface

(PDTCH+PTCCH+idle i.e. PDCH) connected to a packet switched core network (through Gb interface). In Sebire, the circuit switched air interface is connected to a packet switched core network (through Gb or lu-ps interfaces), and allow the circuit switched air interface to support packet data (not only TCH) and therefore to be also connected to a packet switched core network (through Gb or lu-ps interfaces) (§ 179), as depicted in the figure below.



In other words, Sebire can be thought of as antithesis of the unique features set forth in some variation in claims 1, 9 and 11. Sebire discloses having the circuit switched air interface support data traffic from the packet core network. Sebire, however, does not disclose or even remotely suggest the packet switched air interface supporting data traffic in dedicated channels.

Vantinen does not cure the above-noted deficiencies of Sebire reference. Vantinen discloses a system for transmitting data between user equipment and serving mobile location center in packet-switched radio system implementing user equipment location service. Data to be transmitted is placed in a message of a third-layer radio resource protocol. The radio resource protocol message is transmitted to the radio network using a logical link control protocol set on the second layer of the packet protocol stack. A logical link control protocol relay set on the second layer of the packet protocol stack in the radio network directs the logical link protocol

message to a second party. The second-layer logical link control protocol residing in the second party transmits the radio resource protocol message to the radio resource protocol set on the third layer, and the second party disassembles the transmitted data from the radio resource protocol message (*see* Abstract and ¶¶ 14-16). In other words, Vanttinen simply discloses transmitting data from a user equipment to a server and vice versa via both networks (Fig. 1d; ¶ 40).

Vanttinen, however, fails to disclose or even remotely suggest dedicated channels or transmitting real-time traffic. In fact, in the entire disclosure of Vanttinen, there is no mention of dedicated channels or real-time traffic. Clearly then Vanttinen does not disclose or even remotely suggests allocating dedicated channels to real time traffic and supporting the real-time traffic in the packet mode via the Gb interface. Accordingly, this rejection is improper as it lacks “sufficient specificity” required under 102. “[A]nticipation under § 102 can be found only when the reference discloses exactly what is claimed and that where there are differences between the reference disclosure and the claim, the rejection must be based on § 103 which takes differences into account.” *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985); MPEP § 2131.

The Examiner alleges that ¶¶ 53-54 of Vanttinen disclose dedicated channels. However, these paragraphs recite:

The logical link control protocol LLC establishes a reliable encrypted logical link between SGSN and MS. LLC is independent of the lower layers so that the changing of the air interface would affect the network part of the mobile network as little as possible. The services of the logical link control protocol include: a very reliable logical link between peer entities, support for variable-length information frames, support for both acknowledged and unacknowledged data transmission, each frame contains an unambiguous identifier of a transmitting or receiving mobile station, support for different service criteria, such as different priorities

of data transmission, encryption of the transmitted data and user identity. LLC data is transmitted between the Um and Gb interfaces by a logical link control protocol relay LLC RELAY.

The MAC layer is responsible for the following tasks: multiplexing data and signaling on both uplink (mobile station to network part) and downlink (network part to mobile station) connections, management of uplink transmission path resource requests, and allocation and timing of downlink transmission path traffic resources. Traffic prioritisation management also belongs to this layer. The RLC layer takes care of transmitting LLC-layer data, i.e. LLC frames, to the MAC layer; RLC chops the LLC frames into RLC data blocks and transmits them to the MAC layer. In the uplink direction, RLC builds LLC frames of the RLC data blocks and transmits them to the LLC layer. The physical layer is implemented in the Um interface by a radio link, for instance an air interface defined by GSM. Carrier modulation, interleaving and error correction in the data to be transmitted, synchronization and transmitter power control are performed on the physical layer.

As is visible from the above-quoted passages, Vanttinen does not disclose or even remotely suggest having a dedicated channel for real-time traffic in the data packet network *i.e.*, in Gb interface.

Therefore, “supporting the real-time traffic in the GERAN radio access network by allocating dedicated channels to said real time traffic and supporting the real-time traffic in a packet mode in the core network connected to the GERAN radio access network via a Gb interface,” as set forth in claims 1, 9, and 11 is not disclosed by Sebire and Vanttinen. For at least these exemplary reasons, claims 1, 9, and 11 are patentably distinguishable from Sebire and Vanttinen. Accordingly, Applicant respectfully requests the Examiner to withdraw these grounds of rejection of claims 1, 9, and 11 and their dependent claims 2-8.

IV. New Claims


In order to provide more varied protection, Applicant adds claims 12-15, which are patentable by virtue of their dependency and for additional features set forth therein.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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